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EXAMINER

ZHEN, LI B

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 09/823,531	<b>Applicant(s)</b> CHEN ET AL.	
	<b>Examiner</b> LI B. ZHEN	<b>Art Unit</b> 2194	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10, 13, 17-26, 28-37, 39-76 and 78-101 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 13, 17-26, 28-37, 39-76 and 78-101 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1 – 10, 13, 17 – 26, 28 – 37, 39 – 76, and 78 – 101 are pending in the application.

#### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/12/2010 has been entered.

#### ***Terminal Disclaimer***

3. The terminal disclaimer filed on 7/12/2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of any patent granted on Application Number 09/823769 and 09/823835 has been reviewed and is NOT accepted.

4. An attorney or agent, not of record, is not authorized to sign a terminal disclaimer in the capacity as an attorney or agent acting in a representative capacity as provided by 37 CFR 1.34 (a). See 37 CFR 1.321(b) and/or (c).

5. It would be acceptable for a person, other than a recognized officer, to sign a terminal disclaimer, provided the record for the application includes a statement that the person is empowered to sign terminal disclaimers and/or act on behalf of the organization.

Accordingly, a new terminal disclaimer which includes the above empowerment statement will be considered to be signed by an appropriate official of the assignee. A separately filed paper referencing the previously filed terminal disclaimer and containing a proper empowerment statement would also be acceptable.

### ***Double Patenting***

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422

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F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 1 – 10, 13, 17 – 26, 28 – 37, 39 – 76 and 78 – 101 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 2, 18, 37, 46 and 55 of copending Application No. 09/823769 [hereinafter APP769]. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 2, 18, 37, 46 and 55 of APP769 teach the independent claims of the current application. For example, APP769 teaches a method comprising: obtaining an event [claim 2, lines 40 – 44] communicated to a communication server via an incoming communication channel of a plurality of communication channels, wherein the communication server is communicatively coupled to the plurality of communication channels via a plurality of channel drivers [claim 2, lines 7 – 15], each communication channel of the communication channels has a media type, and at least two of the communication channels have different media

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types [claim 2, lines 16 – 20]; providing a notification of the event via the user interface, wherein the user interface comprises a web browser [claim 2, line 45 – 47]; receiving an activation of a command object of the user interface, wherein the activation of the command object is received from one communication channel of the plurality of communication channels and the command object is activated by an agent [claim 18]; identifying one or more parameters associated with a command associated with the activation of the command object wherein the identifying the command comprises the communication server accessing a command parameter table [claim 55]; identifying a channel driver, wherein the channel driver is configured to execute the command [claim 2, lines 4 – 15], and the identifying the channel driver comprises the communication server accessing a command table [claim 39]; and causing the channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [claim 46].

8. Claims 1 – 10, 13, 17 – 26, 28 – 37, 39 – 76 and 78 – 101 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 23 – 25, 27 and 31 of copending Application No. 09/823,835 [hereinafter APP835]. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 23 – 25, 27 and 31 of APP835 teach the independent claims of the current application. For example, APP835 teaches a method comprising: obtaining an event communicated to a communication server via an incoming communication channel of a plurality of communication channels [claim

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24], wherein the communication server is communicatively coupled to the plurality of communication channels via a plurality of channel drivers [claim 23, lines 12 – 13], each communication channel of the communication channels has a media type, and at least two of the communication channels have different media types [claim 23, lines 12 – 13]; providing a notification of the event via the user interface, wherein the user interface comprises a web browser [claim 27]; receiving an activation of a command object of the user interface, wherein the activation of the command object is received from one communication channel of the plurality of communication channels and the command object is activated by an agent [claim 25]; identifying one or more parameters associated with a command associated with the activation of the command object wherein the identifying the command comprises the communication server accessing a command parameter table [claim 31]; identifying a channel driver, wherein the channel driver is configured to execute the command [claim 24, lines 9 – 13], and the identifying the channel driver comprises the communication server accessing a command table [claim 24]; and causing the channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [claim 24].

9. This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

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10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. **Claims 1 – 10, 13, 17 – 22, 24 – 26, 28 – 37, 39 – 42, 45 – 56, 58 – 64, 66 – 76 and 78 – 101 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,332,154 to Beck et al. [hereinafter Beck] in view of U.S. Patent No. 7,092,509 to Mears et al. [hereinafter Mears] and further in view of U.S. Patent No. 6,493,760 to Pendlebury et al. [hereinafter Pendlebury], all references previously cited.**

12. As to claim 1, Beck teaches a method for communicating comprising:

obtaining an event communicated to a communication server [communication center 17; col. 7, lines 33 – 41] via an incoming communication channel of a plurality of communication channels [In step 95, an incoming transaction, such as a live call, an e-mail, etc., is received at the appropriate CTI switch (COST) or routing server (DNT) in a CINOS communication center such as center 17; col. 13, lines 45 – 60], the communication server [communication center 17; col. 8, lines 1 – 10] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5] via a plurality of channel drivers [Module 445 contains



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an appropriate driver; col. 63, lines 1 – 5], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63], the communication server [communication center 17; col. 7, lines 33 – 41] is capable of communicating with the plurality of communication channels of different media types [col. 9, lines 1 – 5], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61];

each communication channel of the plurality of communication channels has a media type [col. 57, line 22 – col. 58, line 10], at least two communication channels of the plurality of communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52], and the event corresponds to a work item [Recorded events such as IVR voice requests; col. 11, lines 21 – 33] available via the incoming communication channel [Audio recognition and text parsing technology may be included in the capability of module 409, col. 58, lines 27 – 42; and Icons a-d are interactive pointers or links to the actual media interactions that they represent, col. 23, line 61 – col. 24, line 8];

providing a notification of the work item to an agent via a user interface [displays such as call-interrupt alerts, new media notifications, or other instructions required to be communicated to an agent may appear as a pop-up window, or other form of graphic

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display; col. 58, lines 50 – 60], wherein the user interface comprises a web browser [col. 14, line 66 – col. 15, line 11];

receiving an activation of a work item object of the user interface wherein the work item object is associated with the work item [clicking on a icon with a pointer device, the actual e-mail may be accessed and viewed; col. 23, line 62 – col. 24, line 8], the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 25, lines 46 – 63] and the work item object is activated by the agent [answering COST calls, answering calls, answering e-mails, responding to other requests such as fax responses, voice mails, making marketing out-calls; col. 55, lines 57 – 62 and col. 53, line 60 – col. 54, line 3]. Beck does not specifically disclose identifying one or more parameters necessary for a command that is associated with the activation of the work item object, and the identifying the command comprises accessing a command parameter table.

However, Mears teaches a single user interface is independent of the media type of the communication channel [agent workstation 102 is controlled to display the agent toolbar 238 as shown in FIG. 48; col. 40, lines 47 – 62 and Table 33 on col. 39], and the single user interface is configured to enable the agent to work using the plurality of communication channels [virtual phone icon 238-2, col. 49, lines 20 – 40 and web collaboration icon 238-3, col. 57, lines 3 – 12], receiving an activation of a work item object [virtual phone icon 238-2, web collaboration interface 238-3; col. 49, lines 19 – 33] of the user interface [agent toolbar 238; col. 49, lines 19 – 33], wherein the work item object is associated with the work item [open the web connection window, the

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agent can click the web collaboration icon 238-3; col. 57, lines 3 – 13], the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels and the work item object is activated by an agent [col. 57, lines 3 – 13 and col. 53, lines 30 – 51]; and identifying one or more parameters necessary for a command, wherein the command is associated with the activation of the work item object [col. 57, line 3 – col. 58, line 26], and the identifying the one or more parameters comprises the communication server accessing a command parameter table [table 41; col. 57, lines 15 – 35].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the invention of Beck to incorporate the features of Mears. One of ordinary skill in the art would have been motivated to make the combination because this provides a contact center system capable of efficiently and effectively handling different types of media contacts [col. 3, lines 2 – 5 of Mears].

Although Beck teaches a communication center that communicates with a customer via multiple channels [an incoming transaction, such as a live call, an e-mail, etc., is received at the appropriate CTI switch (COST) or routing server (DNT) in a CINOS communication center such as center 17; col. 13, lines 45 – 60], Beck does not specifically disclose identifying a channel driver, wherein the channel driver comprises the command, and the identifying the channel driver comprises accessing a command table and causing the channel driver to issue the command from the communication center to an outgoing communication channel of the communication channels.

However, Pendlebury teaches a communication server [server 126; col. 3, lines 42 – 56] is communicatively coupled to the plurality of communication channels [network fax server, network email server; col. 3, lines 13 – 28] via a plurality of channel drivers [fax driver 148, email interface 152; col. 5, line 58 – col. 6, line 3], identifying one or more parameters associated with a command [programmable device parameters 222; col. 7, lines 50 – 64], wherein the command is associated with the activation of the work item object [col. 8, lines 54 – 62], and the identifying the command comprises the communication server accessing a command parameter table [col. 5, lines 1 – 15]; identifying a channel driver, wherein the channel driver is configured to execute the command [col. 5, line 57 – col. 6, line 3], and the identifying the channel driver comprises the communication server accessing a command table [lookup table; col. 5, lines 1 - 15]; the command table specifies a command identifier and a channel driver [directory server; col. 5, lines 1 – 15]; and causing the channel driver to issue the command from the communication server to an outgoing communication channel of the plurality of communication channels [“fax” command; col. 11, lines 5 – 17].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the invention of Beck and Mears to incorporate the features of Pendlebury. One of ordinary skill in the art would have been motivated to make the combination because this allows devices to work in a distributed operating environment without require hardware or software modifications to the devices [col. 13, lines 1 – 22 of Pendlebury].

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13. As to claim 13, Beck as modified teaches a method for communicating from a customer to an agent at a customer support center [col. 13, lines 45 – 60 of Beck] comprising:

communicating an event caused by the customer to a communication server [col. 7, lines 33 – 41 and col. 9, lines 1 – 5 of Beck] via an incoming communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], and at least two of the communication channels have different media types [col. 17, lines 40 – 52 of Beck];

providing a media-independent notification of the event to the agent via a user interface [col. 58, lines 50 – 60 of Beck], the single user interface is configured to enable the agent to work using the plurality of communication channels [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears];

the agent activating a command from the single user interface [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears];

identifying a channel driver [col. 58, lines 27 – 42 of Beck], wherein the channel driver is configured to execute the command [col. 5, line 57 – col. 6, line 3 of Pendlebury], and

the identifying the channel driver comprises the communication server accessing a command table [lookup table; col. 5, lines 1 – 15 of Pendlebury]; and

the command table specifies a command identifier and the channel driver [directory server; col. 5, lines 1 – 15 of Pendlebury]; and

causing the channel driver to issue the command from the communication server to an outgoing communication channel of the plurality of communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury].

14. As to claim 17, this is a program product claim that corresponds to method claim 1; see the rejection to claim 1 above.

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15. As to claim 19, Beck as modified teaches a computer program product [col. 38, lines 41 – 52 of Beck] comprising:

a notification object to provide a notification of an event [col. 58, lines 50 – 60 of Beck] communicated to a communication server [col. 7, lines 33 – 41 of Beck] via an incoming communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 of Beck], and at least two of the communication channels have different media types [col. 17, lines 40 – 52 of Beck]; and

a command object wherein activation of the command object is associated with a command [col. 58, lines 27 – 43 and col. 36, lines 37 – 55 of Beck], the activation of the command object [selection of interactions; col. 58, lines 27 – 42 of Beck] is received from one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck], the activation of the command object causes a channel driver configured to execute the command to be identified [col. 58, lines 27 – 42 of Beck], the command object is activated by an agent [col. 57, lines 3 – 13 of Mears], and the channel driver issues the command from the communication server to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury];

a first identifying module to identify the one or more parameters [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury] necessary for command, wherein the communication server comprises the first identifying module [col. 57, line 3 – col. 58, line 26 of Mears and col. 57, line 22 – col. 58, line 10 of Beck],

the command is associated with the activation of the work item object [col. 58, lines 27 – 43 of Beck and col. 57, line 3 – col. 58, line 26 of Mears], and the first identifying module comprises a first accessing module for accessing a command parameter table [col. 57, lines 15 – 35 of Mears], the command table specifies a



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command identifier and a channel driver [directory server; col. 5, lines 1 – 15 of Pendlebury]; and

a second identifying module to identify the channel driver associated with the command [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30 of Beck], wherein

the communication server comprises the second identifying module, and the second identifying module comprises a second accessing module for accessing a command table [lookup table; col. 5, lines 1 – 15 of Pendlebury]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

16. As to claim 21, Beck as modified teaches a computer system [col. 7, lines 32 – 40 of Beck] comprising:

a processor [processor 61; col. 8, lines 21 – 36 of Beck];

a display [computer screen display; col. 27, lines 32 – 49 of Beck], coupled to the processor;

computer readable medium coupled to the processor [data storage; col. 45, lines 16 – 35 of Beck]; and

computer code, encoded in the computer readable medium, configured to cause the processor to communicate using at least one communication channel of a plurality of communication channels [col. 13, lines 45 – 60 of Beck], wherein

the processor is communicatively coupled to the plurality of communication channels [col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [col. 63, lines 1 – 5

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of Beck], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with a client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

each communication channel of the communication channels has a media type [col. 23, line 61 – col. 24, line 8 of Beck], and at least two of the communication channels have different media types [col. 57, line 22 – col. 58, line 10 of Beck], by virtue of being configured to cause the processor to:

obtain an event communicated to a communication server [communication center 17; col. 8, lines 1 – 10 of Beck] via an incoming communication channel of the communication channels [col. 13, lines 45 – 60 of Beck], wherein the communication server is configured to instantiate the client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], wherein the event corresponds to a work item available via the incoming communication channel [col. 11, lines 21 – 33 of Beck];

provide a notification of the work item to an agent via a single user [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] interface presented on the display [col. 58, lines

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50 – 60 of Beck], wherein the single user interface comprises web browser [col. 14, line 66 – col. 15, line 11 of Beck];

the single user interface is independent of the media type of the communication channel [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], and the single user interface is configured to enable the agent to work using the plurality of communication channels [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears];

receive an activation of a work item object of the user interface [col. 57, lines 27 – 40 of Beck and col. 49, lines 19 – 33 of Mears], wherein the work item object is associated with the work item [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears],

the activation of the work item object is associated with selecting one communication channel of the plurality of communication channels [col. 57, line 22 – col. 58, line 10 of Beck], the work time object is activated by the agent [col. 57, lines 3 – 13 of Mears],

the activation of the work item object [col. 57, lines 27 – 40 of Beck] causes the channel driver configured to execute a command associated with the activation of the work item object to be identified [col. 58, lines 27 – 42 of Beck] and the channel driver issues the command associated with the activation of the work item object to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury];

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identify one or more parameters [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury] necessary for the command associated with the activation of the work item object [col. 17, lines 40 – 52 of Beck];

wherein the computer code configured to cause the processor to identify the one or more parameters comprises computer code to cause the processor to access a command parameter table [col. 57, lines 15 – 35 of Mears and col. 5, lines 1 – 15 of Pendlebury], and

identify the channel-driver associated with the command [col. 62, line 63 – col. 63, line 5 and col. 48, lines 15 – 30; col. 58, lines 27 – 42 of Beck], wherein the computer code configured to cause the processor to identify the channel driver comprises computer code to cause the processor to access a command table [lookup table; col. 5, lines 1 – 15 of Pendlebury], and the command table specifies a command identifier and a channel driver [directory server; col. 5, lines 1 – 15 of Pendlebury].

17. As to claim 22, Beck as modified teaches a computer program product comprising:

a database [col. 16, line 65 – col. 17, line 15 of Beck] comprising:

a communication channel table comprising information regarding a communication channel [col. 24, lines 31 – 42 of Beck];

a command table [col. 57, lines 15 – 35 of Mears] comprising information regarding a user interface object [col. 57, lines 22 – 28 of Beck] of a user interface [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] wherein the command table

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specifies a command identifier and a channel driver [directory server; col. 5, lines 1 – 15 of Pendlebury] the user interface is used to communicate via the communication channel [col. 57, line 22 – col. 58, line 10 of Beck], the user interface comprises a web browser [col. 14, line 66 – col. 15, line 11 of Beck], the information regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 22 – 28 of Beck], and the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck] is received from one communication channel of the plurality of communication channels [col. 58, lines 27 – 42 of Beck];

a channel driver table comprising information regarding a channel driver of a plurality of channel drivers that controls the operation of the communication channel [col. 5, line 58 – col. 6, line 3 of Pendlebury] and is operable to provide an event from the communication channel [col. 11, lines 21 – 32 of Beck] to a communication server [col. 8, lines 1 – 10 of Beck] and to issue the command to the communication channel [“fax” command; col. 11, lines 5 – 17 of Pendlebury], wherein the channel driver of the plurality of channel drivers is configured to instantiate a driver object [col. 63, lines 1 – 5 of Beck], the driver object is configured to instantiate a service object, wherein the service object is specific to a first media type [col. 61, lines 52 – 61 of Beck], the service object is configured to communicate with a client object [col. 61, lines 52 – 61 of Beck], and the communication server is configured to instantiate the client object [col. 62, lines 52 – 63 of Beck];

an event table comprising information regarding the event [col. 11, lines 21 – 32 of Beck]; and

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a command parameter table comprising information regarding one or more parameters necessary for the command [col. 58, lines 27 – 42 of Beck and col. 5, lines 1 – 15 of Pendlebury];

instructions to access the communication channel table, the command table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], the channel driver table [col. 62, line 63 – col. 63, line 5 of Beck and col. 5, lines 1 – 15 of Pendlebury], the event table [col. 11, lines 21 – 32 of Beck], and the command table [col. 48, lines 15 – 30 of Beck] to communicate via the communication channel [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

18. As to claim 39, Beck as modified teaches a computer program product [col. 38, lines 41 – 52 of Beck] comprising:

a user interface object [col. 57, line 22 – col. 58, line 10 and col. 13, lines 45 – 60 of Beck and col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears], wherein the single user interface [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] object is displayed using a user interface comprising a web browser [col. 14, line 66 – col. 15, line 11 of Beck];

a receiving module configured to receive an activation of the user interface object [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck], wherein each communication channel of a plurality of communication channels has a media type [col. 57, line 22 –

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col. 58, line 10 of Beck], and at least two communication channels of the communication channels have different media types [col. 57, line 22 – col. 58, line 10 of Beck];

the activation of the user interface object [col. 49, lines 19 – 33 of Mears] is received at a communication server [col. 57, lines 3 – 13 and col. 49, lines 19 – 33 of Mears] from one communication channel of the plurality of communication channels [col. 58, lines 27 – 42 of Beck],

the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

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the user interface object is activated by an agent [col. 57, lines 3 – 13 of Mears];

the activation of the user interface object is associated with a command [col. 57, line 22 – col. 58, line 10 of Beck],

the activation of the user interface object causes a channel driver [“fax” command; col. 11, lines 5 – 17 of Pendlebury] associated with the command to be identified [col. 58, lines 27 – 43 of Beck], wherein the identifying comprises the communication server accessing a command table [lookup table; col. 5, lines 1 – 15 of Pendlebury] and the command table specifies a command identifier and a channel driver [directory server; col. 5, lines 1 – 15 of Pendlebury];

an accessing module configured to access a command parameter table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck] comprising one or more parameters [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury] associated with the command necessary for the activation of the user interface object [col. 58, lines 27 – 43 of Beck];

a channel driver module configured to cause the channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury]; and

a physical computer readable medium storing the modules of the computer program product [col. 20, lines 35 – 46 of Beck].

19. As to claim 46, Beck as modified teaches a computer program product comprising a database [col. 16, line 65 – col. 17, line 15 of Beck] comprising:



a command table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears] comprising information regarding a user interface object of a single user [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] interface used [col. 49, lines 19 – 33 of Mears] to communicate with a communication channel [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], wherein the command table specifies a command identifier and a channel driver [col. 5, lines 1 – 15 of Pendlebury], the single user interface comprises a web browser [col. 14, line 66 – col. 15, line 11 of Beck], the single user interface is independent of a media type of the communication channel [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], the single user interface is configured to enable an agent to work using the plurality of communication channels [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], the information regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 3 – 13 of Mears];

the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck] is received at a communication server [col. 57, lines 3 – 13 of Mears] from one communication channel of a plurality of communication channels [col. 58, lines 27 – 42 of Beck]; and

the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file

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transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

a command parameter table, wherein the command parameter table [col. 57, lines 15 – 35 of Mears and col. 5, lines 1 – 15 of Pendlebury] specifies one or more parameters necessary for a command [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury];

instructions to access the command table [col. 57, lines 15 – 35 of Mears] when the single user interface is to display information related to a communication via the communication channel [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck];

instructions to access the command parameter table [col. 5, lines 1 – 15 of Pendlebury];

instructions to cause a channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

20. As to claim 54, Beck as modified teaches a computer program product comprising a database [col. 16, line 65 – col. 17, line 15 of Beck] comprising:

a command table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], wherein the command table comprises information regarding a user interface object [col. 57, lines 3 – 13 and col. 53, lines 30 – 51 of Mears] of a single user interface [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] used to communicate via a communication channel [col. 57, line 22 – col. 58, line 10 of Beck], wherein the single user interface comprises a web browser [col. 14, line 66 – col. 15, line 11 of Beck], the single user interface is independent of a media the of the communication channel [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], the single user interface is configured to enable an agent to work using a plurality of communication channels [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], the information

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regarding the user interface object comprises a command associated with activation of the user interface object [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck and col. 57, lines 3 – 13 of Mears];

the activation of the user interface object [col. 57, lines 3 – 13 of Mears] is received at a communication server [col. 7, lines 33 – 41 of Beck] from one communication channel of the plurality of communication channels [col. 58, lines 27 – 42 of Beck];

the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type [fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is

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provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

a command parameter table, wherein the command parameter table [col. 5, lines 1 – 15 of Pendlebury] specifies one or more parameters necessary for a command [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury];

a communication channel table wherein the communication channel table comprises information regarding the communication channel associated with the user interface object [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck];

first instructions configured to access the command table, the command parameter table [lookup table; col. 5, lines 1 – 15 of Pendlebury] and the communication channel table to communicate via the communication channel [col. 42, lines 21 – 36 and col. 41, line 55 – col. 42, line 2 of Beck];

second instructions configured to cause the channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury]; and

a physical computer readable medium configured to store the computer program product [col. 20, lines 35 – 46 of Beck].

21. As to claim 59, Beck as modified teaches a computer program product comprising:

a single user [agent toolbar 238 as shown in FIG. 48, col. 40, lines 47 – 62; Table 33 on col. 39; col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears]

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interface [col. 38, lines 41 – 52 of Beck and col. 49, lines 19 – 33 of Mears] comprising at least one user interface object configured to be activated [col. 57, lines 22 – 28 and col. 36, lines 37 – 55 of Beck] by an agent [col. 57, lines 3 – 13 of Mears], wherein activation of one of the at least one user interface object is associated with issuing a command to one communication channel [col. 48, lines 15 – 30 of Beck] of a plurality of communication channels [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck], the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck and col. 57, lines 3 – 13 of Mears] is received at a communication server [col. 7, lines 33 – 41 of Beck] from the one communication channel of the plurality of communication channels [col. 58, lines 27 – 42 of Beck], the communication server [communication center 17; col. 8, lines 1 – 10 of Beck] is communicatively coupled to the plurality of communication channels [communication mediums such as multimedia DNT applications including e-mail, video mail, file transfers, chat sessions, IP calls, and CTI COST transactions such as voice calls, voice mails, faxes; col. 9, lines 1 – 5 of Beck] via a plurality of channel drivers [Module 445 contains an appropriate driver; col. 63, lines 1 – 5 of Beck], the communication server instantiates a client object [media viewers; col. 62, lines 52 – 63 of Beck], the communication server is capable of communicating with the plurality of communication channels [col. 9, lines 1 – 5 of Beck] of different media types [col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears], a channel driver of the plurality of channel drivers instantiates a driver object [driver for each type of offered media; col. 63, lines 1 – 5 of Beck], the driver object instantiates a service object wherein the service object is specific to a first media type

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[fax module and e-mail module; col. 61, lines 52 – 61 of Beck], the service object communicates with the client object [Fax module 435 is provided and adapted to enable a link to an automated FAX service; col. 61, lines 52 – 61 of Beck];

each communication channel of the communication channels has a media type [col. 57, line 22 – col. 58, line 10 of Beck], at least two communication channels of the communication channels have different media types [e-mail option, chat program; col. 17, lines 40 – 52 of Beck], and the activation causes the communication server to identify a channel driver configured to execute the command [col. 57, lines 22 – 28 of Beck];

an accessing module configured to access a command table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22 of Beck and col. 57, lines 15 – 35 of Mears] comprising information regarding the user interface object [col. 58, lines 27 – 43 of Beck], wherein the information regarding the user interface object comprises a respective command associated with the activation of the user interface object [col. 57, line 22 – col. 58, line 10 of Beck];

a second accessing module configured to access a command parameter table [col. 57, lines 15 – 35 of Mears and col. 5, lines 1 – 15 of Pendlebury], wherein the command parameter table specifies one or more parameters necessary for a command [programmable device parameters 222; col. 7, lines 50 – 64 of Pendlebury];

a channel driver module configured to cause the channel driver to issue the command from the communication server to an outgoing communication channel of the communication channels [“fax” command; col. 11, lines 5 – 17 of Pendlebury]; and

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a physical computer readable medium storing the computer program product  
[col. 20, lines 35 – 46 of Beck].

22. As to claims 67 and 84, these are apparatus claims that correspond to method claim 1; see the rejection to claim 1 above.

23. As to claim 85, this is a program product claim that corresponds to method claim 1; see the rejection to claim 1 above.

24. As to claim 2, Beck teaches the incoming communication channel and the outgoing communication channel are the same [selection of a media type, the client may initiate a call back in the media selected to a client apparatus compatible with the media selected; col. 5, lines 38 – 53].

25. As to claim 3, Beck teaches performing the command by the outgoing communication channel [col. 48, lines 15 – 30].

26. As to claim 4, Beck teaches providing the notification in real time with the obtaining the event [in real time as the interaction takes place; col. 25, line 27 – 34].



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27. As to claim 5, Beck as modified teaches invoking a notification module of the single user interface [notification interface module 317; col. 43, lines 22 – 35 of Beck and col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears].

28. As to claim 6, Beck teaches the activation of the work item object is associated with an accept work item command [Push module 401 is adapted to accept input instruction; col. 57, lines 27 – 40].

29. As to claim 7, Beck teaches the activation of the work item object is associated with a release work item command [Push module 401 is adapted to accept input instruction; col. 57, lines 27 – 40].

30. As to claim 8, Beck teaches sending the command to the command channel driver [col. 48, lines 15 – 30].

31. As to claim 9, Beck as modified teaches obtaining the command from the single user interface [notification interface module 317; col. 43, lines 22 – 35 of Beck and col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] by a communication server [servers MIS 79 and Server 77; col. 54, lines 31 – 50 of Beck], wherein the communication server sends the command to the channel driver [In step 281 commands are sent to the IOM; col. 33, lines 23 – 40 of Beck].

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32. As to claim 10, Beck teaches sending the command to the channel driver for the incoming communication channel [interface command module 341; col. 48, lines 15 – 30] if the incoming communication channel and the outgoing communication channel are the same [selection of a media type, the client may initiate a call back in the media selected to a client apparatus compatible with the media selected; col. 5, lines 38 – 53].

33. As to claim 18, this is rejected for the same reasons as claim 2 above.

34. As to claim 20, this is rejected for the same reasons as claim 2 above.

35. As to claim 24, Beck teaches the event table provides access to an event ID of the event [identifier is assigned to an entity and to all the communication events; col. 24, lines 8 – 18]; an event name of the event [text version of the event; col. 10, lines 36 – 50]; and a channel driver ID of the channel driver [col. 41, lines 30 – 47].

36. As to claim 25, Beck teaches the command table provides access to: a command ID of the command [input parameters; col. 51, lines 12 – 29]; a command name of the command [col. 47, lines 3 – 24]; and a channel driver ID of the channel driver [col. 41, lines 30 – 47].

37. As to claim 26, Beck teaches the channel driver table comprises: a channel driver ID of the channel driver [col. 41, lines 30 – 47]; a media type of the

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communication channel [media support module 445 is provided and adapted to contain required media drivers for executing different types of media presentations offered; col. 62, line 63 – col. 63, line 5]; a file name of the channel driver and a media string that allows a media service associated with the channel driver to be invoked [Module 445 contains an appropriate driver for each type of offered media as required. In one embodiment, such drivers may also be downloaded to a client's browser through desktop interface module 443; col. 62, line 63 – col. 63, line 5].

38. As to claim 28, Beck teaches the activation of the work item object is associated with selecting from a list of a plurality of work item [agent to subscribe to workload queues; col. 56, lines 1 – 20 and col. 57, lines 22 – 28].

39. As to claim 29, Beck teaches the activation of the work item object is associated with one of a suspend work item command [Interrupt module 407; col. 58, lines 5 – 20] and a retrieve work item command [retrieved by agents after receiving notification; col. 11, lines 21 – 33].

40. As to claim 30, Beck teaches the activation of the work item object is associated with an initiate work item command [col. 11, lines 21 – 33].

41. As to claim 31, Beck teaches the activation of the work item object is associated with one of a blind transfer of work item command [file share; col. 8, lines 1 – 10], a

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consultative transfer of work item command [file transfers; col. 8, lines 1 – 10], and a conference command [multi-agent conference; col. 39, lines 45 – 62].

42. As to claim 32, Beck as modified teaches the single user interface [notification interface module 317; col. 43, lines 22 – 35 of Beck and col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] comprises a plurality of user interfaces [col. 57, lines 22 – 28 of Beck], wherein each user interface of the plurality of user interfaces is associated with an agent of a plurality of agents [pool of agents services; col. 12, lines 37 – 55 of Beck]; and further comprising: determining one agent of the agents to be notified of the event [agent to subscribe to workload queues; col. 56, lines 1 – 20 and col. 57, lines 22 – 28 of Beck], wherein the providing the notification comprises providing the notification to the one agent via the single user interface associated with the one agent [notification interface module 317; col. 43, lines 22 – 35 of Beck].

43. As to claim 33, Beck teaches determining the command to be issued from a context of the work item object when the work item object is activated [Workflow layer 85 comprises 3 basic function categories; col. 13, lines 10 – 22].

44. As to claim 34, Beck teaches a causing module to cause the command to be issued to the outgoing communication channel [col. 48, lines 15 – 30].

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45. As to claim 35, Beck teaches an assignment module to determine an assignment of an agent to the work item [col. 58, lines 20 – 28].

46. As to claim 36, Beck teaches a channel driver table comprising information about a plurality of channel drivers [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

47. As to claim 37, Beck teaches a communication channel table comprising information regarding a plurality of communication channels [MIS 189; col. 24, lines 31 – 42].

48. As to claim 40, Beck teaches an event handling module configured to handle an event from an incoming communication channel of the communication channels [event handler adapted to identify and organize such dialogs so that they may be associated along the proper thread or threads; col. 40, lines 10 – 21].

49. As to claim 41, Beck teaches a notifying module configured to provide a notification of the event [notification interface module 317; col. 43, lines 22 – 35].

50. As to claim 42, Beck teaches a responding module configured to perform an event response to the event [incoming events are analyzed and processed with regards

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to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32].

51. As to claim 45, Beck teaches an assigning module configured to assign an agent to receive a notification of an event [interaction-sorter module prepares a list for each assigned agent; col. 52, lines 8 – 27]; and a notifying module configured to provide the notification to the agent [notification interface module 317; col. 43, lines 22 – 35].

52. As to claim 47, Beck teaches a communication channel table comprising information regarding the communication channel [MIS 189; col. 24, lines 31 – 42].

53. As to claim 48, Beck teaches the communication channel table comprises information about a plurality of communication channels [MIS 189; col. 24, lines 31 – 42].

54. As to claim 49, Beck teaches a channel driver table comprising information about a plurality of channel drivers, wherein each channel driver of the channel drivers controls the operation of one communication channel of the communication channels [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

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55. As to claim 50, Beck teaches a channel driver table comprising information about a channel driver that controls the operation of the communication channel [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

56. As to claim 51, Beck teaches a command table comprising information regarding a command sent to the communication channel [interface command module 341; col. 48, lines 15 – 30].

57. As to claim 52, Beck teaches an event table comprising information regarding an event originating in response to a communication received from the communication channel [incoming events are analyzed and processed with regards to queuing, recording, storing, etc. CINOS decides the disposition paths of each event; col. 11, lines 21 – 32].

58. As to claim 53, Beck teaches an event response table comprising information regarding an event response to be performed in response to the event [routing and routing notification events, any media may be routed to an appropriate agent based on skill, or any other rule-based routing method; col. 11, lines 32 – 39].

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59. As to claim 55, Beck teaches the object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] further comprises information regarding an action to be performed when the user interface object is activated [col. 58, lines 27 – 42].

60. As to claim 56, Beck teaches the action comprises issuing a command to the communication channel [interface command module 341; col. 48, lines 15 – 30].

61. As to claim 58, Beck teaches the object table further comprises a notification object [notification interface module 317; col. 43, lines 22 – 35].

62. As to claim 60, Beck as modified teaches the single user interface [notification interface module 317; col. 43, lines 22 – 35 of Beck and col. 49, lines 20 – 40 and col. 57, lines 3 – 12 of Mears] is configured to communicate with a communication server [servers MIS 79 and Server 77; col. 54, lines 31 – 50 of Beck], and wherein the communication server causes the command to be issued to the one communication channel [In step 281 commands are sent to the IOM; col. 33, lines 23 – 40 of Beck].

63. As to claim 61, Beck teaches the communication server further receives an indication of activation of the user interface object [Activation in this sense is defined as activation to receive from or communicate with a specific requesting system; col. 33, lines 15 – 25].



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64. As to claim 62, Beck teaches a channel driver is communicatively coupled to the one communication channel to issue the command [interface command module 341; col. 48, lines 15 – 30].

65. As to claim 63, Beck teaches the channel driver is one of a plurality of channel drivers, wherein each channel driver of the channel drivers is associated with an associated communication channel of the plurality of communication channels [Module 445 contains an appropriate driver for each type of offered media; col. 62, line 63 – col. 63, line 5].

66. As to claim 64, Beck teaches a database comprising a command table regarding a command [col. 48, lines 15 – 30] and a user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] comprising information regarding the user interface object [A customer service section 137 contains interactive options presented to existing clients needing service; col. 16, lines 15 - 24] and the command to be issued upon activation of the user interface object [col. 57, lines 22 – 28].

67. As to claim 66, Beck teaches the command table [col. 48, lines 15 – 30] and the user interface object table [col. 40, lines 20 – 32 and col. 40, line 42 – col. 42, line 22] are accessed to cause the channel driver to issue the command [col. 48, lines 15 – 30].

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68. As to claims 68 – 76, these are apparatus claims that correspond to method claims 2 – 10; note the rejections to method claims 2 – 10 above, which also meet these apparatus claims.

69. As to claims 78 – 83, these are apparatus claims that correspond to method claims 28 – 33; note the rejections to method claims 28 – 33 above, which also meet these apparatus claims.

70. As to claims 86 – 94, these are product claims that correspond to method claims 2 – 10; note the rejections to claims 2 – 10 above, which also meet these product claims.

71. As to claim 95, Beck teaches the activation of the command object is associated with selecting one communication channel of the plurality of communication channels [col. 58, lines 20 – 28].

72. As to claims 96 – 101, these are rejected for the same reasons as claims 28 – 33 above.

73. **Claims 23, 43, 44, 57 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beck, Mears and Penlebury further in view of U.S. Patent No. 6,587,556 to Judkins et al. [hereinafter Judkins, previously cited].**

74. As to claim 23, Beck teaches the communication channel table provides access to: a channel ID of the communication channel [parameters which may include phone numbers e-mail addresses, IP addresses; col. 41, lines 30 – 47]; media type of the communication channel [media type; col. 9, line 58 – col. 10, line 10], but does not teach a configuration ID of a configuration to which the communication channel belongs.

However, Judkins teaches a method of configuring the scripting of a call center including an interactive voice response server and automatic call distributor server [col. 2, lines 20 – 39], a plurality of communication channels [actions such as e-mail, pager, etc.; col. 40, lines 25 – 67], and a configuration ID of a configuration to which the communication channel belongs [col. 25, lines 17 – 33].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Pendlebury to include the features of a configuration ID of a configuration to which the communication channel belongs because this allows the user to control and configure all aspects of the call center system and monitor server activity [col. 14, lines 5 – 14 of Judkins] and provides a user the ability to configure the system setup and parameters and monitor system performance [col. 14, lines 14 – 25 of Judkins].

75. As to claim 43, Beck as modified does not teaches a status object, a status updating module to update a status of an agent using the user interface to one of ready and not ready when the status object is activated.

However, Judkins teaches a method of configuring the scripting of a call center including an interactive voice response server and automatic call distributor server [col. 2, lines 20 – 39], a plurality of communication channels [actions such as e-mail, pager, etc.; col. 40, lines 25 – 67], a status object [All agents are listed alphabetically on this screen along with their status; col. 21, line 65 – col. 66, line 13], and a status updating module configured to update a status of an agent using the single user interface to one of ready and not ready when the status object is activated [an agent is no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Pendlebury to include the features of a status object and a status updating module to update a status of an agent because this allows work to be routed to the longest available agent [col. 13, lines 19 – 29 of Judkins] and provides requests to be rerouted to a site with available agents [col. 13, lines 52 – 64 of Judkins].

76. As to claim 44, Beck as modified teaches a status changing module configured to change a status of an agent using the single user interface to one of ready and not ready [an agent is no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60 of Judkins]. As to the motivation for combining Beck and Judkins, see the rejection to claim 43 above.

77. As to claim 57, Beck as modified teaches the action comprises setting an agent status to one of ready and not ready [an agent is no longer in use, the user can highlight the agent and click the Disable This Agent button 462 (FIG. 38) such that an agent can be disabled; col. 22, lines 51 – 60 of Judkins]. As to the motivation for combining Beck and Judkins, see the rejection to claim 43 above.

78. As to claim 65, Beck as modified teaches a configuration table comprising information regarding a configuration for a user of the single user interface [logical devices table (FIG. 7) defines logical names for devices configured in the system device table; col. 10, lines 30 – 40 of Judkins], wherein the configuration determines whether the command is available to the user [col. 14, lines 25 – 38 of Judkins].

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to further modify the combination of Beck, Mears and Pendlebury to include the features of a configuration table comprising information regarding a configuration for a user of the user interface because this allows the user to control and configure all aspects of the call center system and monitor server activity [col. 14, lines 5 – 14 of Judkins] and provides a user the ability to configure the system setup and parameters and monitor system performance [col. 14, lines 14 – 25 of Judkins].

### ***Response to Arguments***

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79. Applicant's arguments filed 7/12/2010 have been fully considered but they are not persuasive. In response to the previous office action, applicant argues:

- (1) "The Office Action on page 6 cites col. 63, lines 1-5 of Beck as describing a channel driver that instantiates a driver object. In so doing, the Office Action seems to be equating the "media driver" in Beck (col. 63, lines 1-5) with a channel driver which instantiates a driver object, as recited in claim 1." [p. 34];
- (2) "Applicants disagree that "virtual phone icon" is comparable to a work item object recited in claim 1....It should be noted that the Office Action cites Mears at col. 57, lines 3-13 as teaching that the "work item object is associated with the work item," and that the "activation of the work item object is associated with selecting one communication channel from a plurality of communication channels." All this passage says is that "[t]o open the web connection window, the agent can click the web collaboration icon 238-3 on the agent toolbar 238 as shown in FIGS. 46 and 48." Nowhere is there a reference to a work item object or the selection of a communication channel, as claimed in claim 1." [pp. 35-36]
- (3) "The token-enabled server operates in a token-enabled operating environment which distributes references to documents by the transmission of document tokens rather than the documents themselves (col. 1, lines 50-55). This is not comparable to a communication server that communicates with a channel driver, instantiates a client object which itself communicates with a service object that is specific to a media type, as disclosed in claim 1." [p. 36]

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(4) "The Office action then cites "programmable device parameters 222 of a fax machine include a fax number 224, a fax name 226 (or text message), a fax resolution 228, and a password 230" (Pendlebury col. 7, line 60) as being the equivalent of identifying parameters associated with a command as claimed in claim 1. Applicants respectfully submit that the cited fax machine parameters are not the same as the claimed parameter table or a communication server accessing a command parameter table." [p. 37]

As to argument (1), examiner respectfully disagrees and notes that the "media support module" in Beck corresponds to the channel driver and "media drivers" correspond to the driver object [col. 63, lines 20 – 29]. The media support module contains media drivers for executing different types of media presentations offered. Therefore, the media support module in Beck provides instructions to create a driver object (i.e. media driver) and service object (i.e. E-mail module and FAX module; col. 62, lines 9 – 18).

As to argument (2), examiner respectfully disagrees. Mears contact center system 100 is configured to receive, organize, queue, and properly route contacts of different media types to the agent telephones 104 and, if appropriate, to the agent workstations 102 [col. 9, lines 35 – 40]. One of the basic structures used in the contact center system 100 to achieve this organizing and routing of contacts is a concept known as a "campaign" [col. 9, lines 42 – 45]. Basically, any organized structure created to

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accept, distribute, and monitor work coming into an organization using any media type is considered a campaign [col. 10, lines 1 – 3]. Therefore, the contact in Mears corresponds to the claimed work item object. The Virtual Phone icon 238-2 of the Agent Toolbar [col. 39, line 18 – col. 40, line 25] is a button for opening the Virtual Phone and visual indicator of the connection status of a telephone contact. The Web Collaboration Interface 238-3 allows the agent to communicate with a contact via the Web. The agent selects the telephone channel by clicking on the Virtual Phone icon to work on a telephone contact and selects the Web Collaboration icon to establish a web chat channel to work on a contact via the Web [col. 57, lines 4 - 12].

As to argument (3), examiner respectfully disagrees and notes that Pendlebury teaches a communication server [server 126; col. 3, lines 42 – 56] is communicatively coupled to the plurality of communication channels [network fax server, network email server; col. 3, lines 13 – 28] via a plurality of channel drivers [fax driver 148, email interface 152; col. 5, line 58 – col. 6, line 3]. Therefore, the server in Pendlebury corresponds to the claimed communication server. In addition, Pendlebury teaches identifying one or more parameters associated with a command [programmable device parameters 222; col. 7, lines 50 – 64], wherein the command is associated with the activation of the work item object [col. 8, lines 54 – 62], and the identifying the command comprises the communication server accessing a command parameter table [col. 5, lines 1 – 15]; identifying a channel driver, wherein the channel driver is configured to execute the command [col. 5, line 57 – col. 6, line 3], and the identifying the channel



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driver comprises the communication server accessing a command table [lookup table; col. 5, lines 1 - 15]; the command table specifies a command identifier and a channel driver [directory server; col. 5, lines 1 – 15]; and causing the channel driver to issue the command from the communication server to an outgoing communication channel of the plurality of communication channels [“fax” command; col. 11, lines 5 – 17].

As to argument (4), examiner respectfully disagrees and notes that Pendlebury teaches storing device parameters at a central location in the directory server of the token enable server [col. 9, lines 37 – 46]. Once the device parameters for a particular device are programmed, the program button is pressed to open an IR communication channel [col. 9, lines 16 – 21]. Therefore, the directory server of Pendlebury corresponds to the claimed command parameter table and device parameters are accessed to open a communication channel.

#### **CONTACT INFORMATION**

80. Any inquiry concerning this communication or earlier communications from the examiner should be directed to LI B. ZHEN whose telephone number is (571)272-3768. The examiner can normally be reached on Mon - Fri, 8:30am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hyung Sub Sough can be reached on 571-272-6799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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/Li B. Zhen/  
Primary Examiner, Art Unit 2194